

SHELIUKHOVSKLY, L.

We erect main livestock buildings. Sel'stroi. 11 no.1:12-14
Ja '56. (MLRA 9:6)

1.Glavnyy inzhener Stavropol'skogo krayevogo upravleniya po
stroitel'stvu v Lolkhozakh.
(Farm buildings)

SHELUKHOVSKIY, I.

Reed is an excellent building material. Sel'stroi. 12 no.5:4-5
My '57. (MIRA 10:7)

1. Glavnyy inzhener Stavropol'skogo krayevogo upravleniya po
stroitel'stvu v kolkhozakh.
(Reed (Botany)) (Stavropol Territory--Farm buildings)

SHELUKHOVSKIY, I., glavnyy inzhener

Stavropol "territorial interfarm organization" has started its work.
Sel'. stroi. 13 no.4:16-17 Ap '59. (MIRA 12:6)

1. Stavropol'skiy krayevoy sovet mezhkolkhoznykh stroitel'nykh
organizatsiy.

(Stavropol Territory--Building)

SHELUKOV, I.I.

6690

SHELUKOV, I.I. and CHASHECHKO, S.S. Kontrol' Detaley v Prosesse Shlifovaniya.
L., 1954. R s.s Chert. 21 Sm. (Vsesyuz. O-vo Po Rasprostraneniyu Polit. I Nauch.
Znaniy. Leningr. Dom Nauch.-Tekhn. Propagandy. Listok Novatora. No. 38 (277)).
3.800 EKz. 20 K.--Avt. Ukazano v Kortse Tesksta.—(55-122 Zh) 6^1.923: 658.562-52

SO: Knizhnaya Letopis' № . 6, 1955

ZHUKOV, A. A.; SAKHAROVA, L. A.; SHELUMISOV, N. I.; TROTSIK, A. V.; YATSUMOVA, G.

1. ceramic facing tile of semi-dry prezzing from tile raw material.
Gorn. mat., daz. i izd. n. 251-105 '65 (MIRA 19:1)

2. gipsoparaglyaznyy material - issledovatel'skiy institut stroitel'-
gip. materialov i izdeliy, Kiyev. (for Zhukov, Sakharchova). 2.
Fizicheskiy eksperimental'nyy issledovatel'skiy zavod (for Shelum-
tsev, Nosova, Yatsunova).

SHELURINA, T. A., mladshiy nauchnyy sotrudnik

Effect of the biological preparation beauverin on the fertility
of the shield bug Eurygaster integriceps. Zashch. rast. ot vred.
i bol. 5 no.5:35-36 My '60. (MIRA 16:1)

1. Vsesoyuznyy institut zashchity rasteniy.

(Wheat—Diseases and pests)
(Eurygasters—Extermination)
(Insecticides)

VOLODINA, N.N., kand. tekhn. nauk; SOLV'YEVA, M.K., arkhitektor;
SHELUTINSKIY, A.P., inzh.

Using large ceramic blocks for apartment houses walls and roofs.
Sbor. trud. ROSNIIMS no.27:113-120 '63. (MIRA 17:1)

BERNSHTEYN, B.I., inzh.; VAIYUZHINOV, V.Ian., fiz.-mat.; GDALIN, A.P.,
inzh.; GOLOVKIN, V.A., inzh.; GOMZEVVA N.I., inzh.;
GUEVICH, V.E., inzh.; KHROVIN, N.V., inzh.; KLEBOV, V.G.,
inzh.; LERMAN, I.M., inzh.; MITRIASHIN, M.L., inzh.;
OGANESOV, N.G., inzh.; OKUNEV, N.A., inzh.; TURZHITSKIY,
V.I., inzh.; YUFIT, B.F., inzh.; SHELEVAKH, V.F., inzh.

[Manual on the quarrying and processing of rock building
materials] Spravochnik po dobache i pererabotke nerudnykh
stroitel'nykh materialov. Leningrad, Stroizdat, 1965.
520 p. (MIA 18:2)

1. Vsesoyuznyy gosudarstvennyy institut po proyektnym i
nauchno-issledovatel'skim rabotam promyshlennosti nerud-
nykh stroitel'nykh materialov.

SHELVEL', V.P.

What prevents better utilization of machinery. Mekh. sil'.
, hosp. 12 no.7:24-25 Jl '61. (MIRA 14:6)

1. Zaveduyushchiy Kamenets-Podol'skiy rayonnym otdeleniyem
"Ukrsel'khoztekhniki", Khmel'nitskoy oblasti.
(Kamenets--Podol'skiy District--Collective farms)
(Agricultural machinery)

KHORN, K.; SHELYAG, D.

Mechanized hoisting of sliding forms. Strcitel' no.7:3-9 Jl '57.
(MIRA 10:9)

1. Glavnyy inzhener Upravleniya nachal'nika rabot-138 (for Khorn).
2. Nachal'nik vyzvodstvenno-tehnicheskogo otdeleniya Upravleniya
nachal'nika rabot-138 (for Shelyag).
(Hoisting machinery) (Concrete construction--Formwork)

SHELYAG, V., kapitan 1-go ranga

We should improve the scholarly research of social science
departments. Komm. Vooruzh. 2 no.11:30-35 Je '62. (MIRA 15:5)
(Military art and science)

SHELYAG, V., kapital l-go ranga, kand. filosofskikh nauk

Spiritual fundamentals of the communist society and the training
of soldiers. Komm. Vooruzh. Sil 46 no.5(9) 17 Mr '65. (MIRA 13:4)

SHELYAG, V.V., kand.filosofskikh nauk, kapitan 1-go ranga

Educate the personnel in high qualities of fortitude and combat
readiness. Mor. sbor. 44 no.5:13-20 My '61. (MRA 16:5)
(Naval education)

BARABANSHCHIKOV, A.V., podpolkovnik, kan.: pedag. nauk; GALKIN, M.I., polkovnik, kand. fil. nauk; D'YACHENKO, M.I., podpolkovnik, kand.ped.nauk,dots.; KOTOV, N.F., polkovnik,kand. ped.nauk; KOLOBEYNIKOV, M.P., polkovnik, kand.ped.nauk; KRAVCHUN, N.S., kapitan 2 ranga, kand.ped.nauk, dots.; LUTSKOV, V.I., kand. ped. nauk, podpolkovnik; FEDENKO, N.F., kapitan, kand. ped. nauk, dots.; SHELYAG, V.V., kapitan 1 ranga, kand. fil.nauk; VOSTOKOV, Ye.I., general-major, kand. ist. nauk; KUBASOV, A.F., general-leytenant zapasa, red.; BELCUEOV, G.G., general-major, red.; TREFILOV, N.F., kapitan 2 ranga, red.; KURASHOVA, L.A., tekhn.red.

[Fundamentals of military pedagogy and psychology; & training aid] Osnovy voennoi pedagogiki i psichologii; uchebnoe posobie.
[By] A.V.Barabanshchikov i dr. Moskva, Voenizdat, 1964. 383 p.
(MIRA 17:2)

ACC NR: A76035091

SOURCE CODE: UR/0000/66/000/000/0107/0132

AUTHOR: Lyubimova, Ye. A.; Shelyagin, V. A.; Shushpanov, A. P.

ORG: none

TITLE: Instrumentation for determination of the plutonic heat flux

SOURCE: AN SSSR. Institut fiziki Zemli. Problemy glubinnogo teplovogo potoka
(Problems of heat flow in the earth's interior). Moscow, Izd-vo Nauka, 1966, 107-132

TOPIC TAGS: heat measurement, heat transfer, conduction heat transfer, convection
heat transfer, geology, earth crust

ABSTRACT: The article reviews Soviet and foreign literature dealing with equipment and methods for measuring the heat flux from the deep layers of the earth toward its surface. The difficulties connected with these measurements are very considerable because of the minute values of the heat flux; it is of the order of $1 \mu \text{ cal/cm}^2 \text{ sec}$ (the flux from the sun is about thousand times greater). Recent improvements in methods include the substitution of thermometers (thermocouples) by thermistors (semiconductors), which have the advantage of smaller size, and the elimination of heavy cables for heat transmission (not practicable for depths of several kilometers) and signaling temperature by transmitting ultrasonic waves. Associated problems—heat conductivity and heat capacity of rocks—are approached with a variety of methods used

Card 1/2

AFANASYEV, D.Ya. [Afanas'ev, D.IA.]; SHELYAG-SOBONKO, Yu.R. [Shelish-Sobonko, Yu.R.]

Floodplain meadows of the western part of Volyn' oblast, Ukr.
bot. zhur. 22 no.4:68-74. '65. (MFA 18.10)

1. Institut botaniki AN UkrSSR, otdel geobotaniki.

SHELYAG-SOSONKO, Yu.R. [Shelia-Sosenko, Iu.R.]; BAYROVA, R.S.

Description of the vegetation of the Podolian Pokut'ye. Ukr.
bot. zhur. 22 no.5:67-74 '65. (MIRA 18:10)

I. Institut botaniki AN UkrSSR, otdel geobotaniki, i Kafedra
sistematiki vysshikh rasteniy Chernovitskogo gosudarstvennogo
universiteta.

GOROKHOVA, Z.N.; SHELYAG-SOSONKO, Yu.R.

Taxus baccata L. in the forests of Chernovtsy Province. Bot. zhur.
45 no.9:1322-1325 S '60. (MIRA 13:9)

1. Chernovitskiy gosudarstvennyy universitet, g. Chernovitsy.
(Chernovtsy Province--Yew)

SHELYAG-SOSONKO, Yu.R. [Sheliah-Sosonko, IU.R.]

Forests of the upper Dniester Valley. Ukr.bot.zhur. 18
no.6:32-39 '61. (MIRA 15:3)

1. Institut botaniki AN USSR, otdel geobotaniki.
(Dniester Valley--Forest and forestry)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549020011-8

SHELYAGIN, I. N., BORDOYUKOV, M. P., ZHUKOV, Yu. P. and LOBANOV, A. N.

"Aerophototopography," Moscow, 1947

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549020011-8"

ACC NR: AP/002934

SOURCE CODE: UR/0020/66/171/006/1321/1324

AUTHOR: Lyubimova, Ye. A.; Shelyagin, V. A.

ORG: Institute of Physics of the Earth, Academy of Sciences, SSSR (Institut fiziki Zemli Akademii nauk SSSR)

TITLE: Heat flow through the bottom of Lake Baykal

SOURCE: AN SSSR. Doklady, v. 171, no. 6, 1966, 1321-1324

TOPIC TAGS: earth thermodynamics, earthquake, heat measurement , SURFA:

L'vov / LAKE BAIKAL
ABSTRACT: In view of the interest attaching to the region of Lake Baykal, where a large number of earthquakes still occur, the authors have used an oceanographic procedure for determining the heat flow by introducing a thermal-gradient gauge into the bottom of the lake. The work was organized in 1965 by the Institute of Earth Physics AN SSSR in conjunction with the Limnological Institute and the Institute for the Earth's Crust of the Siberian Department of AN SSSR, using the research vessel "G. Yu. Vereshchagin." The construction of the thermal-gradient gauge was described elsewhere (Apparatura dlya opredeleniya teplovogo potoka [Apparatus for Heat-flux Determination], Nauka, 1965). The heat flux was measured at depths greater than 700 meters. The test procedure is briefly described. A table listing the heat flux in different locations is presented, and the arithmetic mean of the flux is found to be 2.6×10^{-8} cal/cm² sec. Before the true heat flux can be calculated it is necessary to determine the influence of topographic irregularities, the role of the

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UDC: 550.361

ACC NR: AP7002934

cold water mass, and the role of the river deposits on the bottom of the lake. It is tentatively estimated that all these factors will increase the average heat flux by 23%, raising it to 3.2×10^{-6} cal/cm² sec. This report was presented by Academician A. P. Vinogradov 3 February 1966. Orig. art. has: 3 figures, 2 formulas and 2 tables.

SUB CODE: 08/ SUBM DATE: 17Jan66/ ORIG REF: 009/ OTH REF: 004

Card 2/2

IL'KOV, B.Y.; KIREYEV, G.A.; LOZOVSKIY, A.T.; LAKHMAN, I.L.; NIKOLAYEV, G.A.;
PAVLUSHCHENKO, Y.P.; ROZHDESTVENSKIY, I.K.; RUVIMSKIY, I.M.; SAVINOV-
SKIY, D.A.; SENCHENKO, Ye.Y.; SEREDA, A.S.; SKOKLIK, V.D.; RASSADNI-
KOV, Ye.I., redaktor; SHELYAGINA, A.A., redaktor; LARIONOV, G.Ye.,
tekhnicheskiy redaktor

[Operation of the Sredne-Uralsk Hydroelectric Power Station] Opyt
eksploatatsii Sredne-Ural'skoj GEES. Pod red. E.I.Rassadnikova i
I.K.Rozhdestvenskogo. Moskva, Gos. energ. izd-vo, 1956. 103 p.
(MLRA 10:1)

(Sredne-Uralsk Hydroelectric Power Station)

LACHINOV, Nikolay Vladimirovich; GRIGOR'IEV, T.Ye., redaktor; SHELYAGINA, A.A.,
redaktor; SKVORTSOV, I.M., tekhnicheskikh redaktor

[Fitter's manual on assembling accessory devices for boiler rooms]
Pamiatka slesaria po montazhu vspomogatel'nykh mekhanizmov kotel'-
nykh tsakhov. Izd. 2-oe, ispr. i dop. Pod red. T.E. Grigor'eva.
Moskva, Gos. energ. izd-vo, 1956. 111 p. (MLRA 10:2)
(Boilers--Accessories)

ZHIRITSKII, Georgiy Sergeyevich; SHELYAGINA, A.A., redaktor; VORONIK, K.P.,
redaktor; LARIONOV, G.E., redaktor.

[The construction and the calculation of the strength of parts for
steam turbines] Konstruktsii i raschet na prechnost' detalei parovykh
turbin. Moskva, Gospoenergeticheskoe izd-vo, 1955. 279 p.
(Steam turbines) (MIRA 8:1)

ШЕЛЯКОВСКИЙ, М. В.

Р. 227T²⁴

USSR/Medicine, Plastic Surgery

May/Jun 52

"Changes in the Physical and Chemical Properties of Certain Plastic Masses Implanted into Animal Tissues," M.V. Shelyakovsky, I.M. Ezriyeliev, Clinic of Hosp Surg, Mil Med Acad imeni S.M. Kirov, and NIP (Leningrad Sci Res Inst of Plastics)

"Vest Khirurgii" Vol 72, No 3, pp 64-67

Describes research on finding suitable plastic materials for implantation into tissues of animals. After enumeration of various adverse effects of most plastics on animal and human organisms (chemical reaction following the irritation of surrounding tissues, deterioration and diffusion of the plastic

227T²⁴

(mass, etc.) the authors advise the use of polyethylene and plastic № 636 [compr not given] as cheap and efficient agents in alloplastic surgery for grafting of defects in soft tissues.

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SHELYAKHOVSKIY, M.V., kandidat meditsinskikh nauk

Use of soft plastics for closing defects in the abdominal wall.
Khirurgija no.12:31-35 D' 55. (MIRA 9:7)

1. Iz kliniki gospital'noy khirurgii Voyenno-meditsinskoy akademii
imani S.M.Kirova (nach.-deystvitel'nyy chlen AMN SSSR general-
leytenant meditsinskoy sluzhby prof. S.S.Girgolav)

(ABDOMINAL WALL. surg.

reconstrucitive plastic material)

(PLASTICS

soft plastic material in reconstructive surg. of
abdominal wall)

VAYNSHTEYN, V.G., professor, Leningrad, Kirovskii pr., d. 26/28,
kv.69; SHELYAKHOVSKIY, M.V., kandidat meditsinskikh nauk

Osteosynthesis in open and concealed fractures of long bones.
Vest.khir.75 no.5:29-37 Je '55. (MLRA 8:10)

1. Iz kliniki gospital'noy khirurgii (nach-prof. I.S.Kolesnikov) Voyenno-Meditsinskoy ordena Lenina akademii im.S.M. Kirova.

(FRACTURES, surgery,
intramedullary nailing)

SHELYAKHOVSKIY, M.V., kandidat meditsinskikh nauk

Late results of using soft plastics in reconstructive surgery.
Vest.khir.76 no.10:78-83 N '55. (MIRA 9:1)

1. Iz gospital'noy khirurgicheskoy kliniki (nach--prof. I.S.
Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii im.
S.M.Kirova.

(SURGERY, PLASTIC,
use of plastic masses)
(PLASTICS
in plastic surg.)

SHELYAKHOVSKIY, M.V., kand.med.nauk; PUTERMAN-LIPPERT, F.E.

Treatment of burns in connection with changes in the sensitivity of microflora of burned surfaces to antibiotics. Khirurgia 34 no.2:36-43 F '58. (MIRA 11:4)

1. Iz kafedry gospital'noy khirurgii (nachal'nik - prof. general-major meditsinskoy sluzhby I.S.Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

(BURNS, ther. penicillin, eff. on sensitivity of microflora of burned surfaces (Rus))

(PENICILLIN, ther. use burns, eff. on sensitivity of microflora of burned surfaces (Rus))

SHELYAKHOVSKIY, M.V., kand.med.nauk; PUTERMAN-LIPPERT, F.E.

Treatment of burns in connection with changes in the sensitivity of
the microflora of burn surfaces to antibiotics (synthomycin). Khirur-
giia 35 no.7:44-51 Ju '59. (MIRA 12:12)

1. Iz kafedry gospital'noy khirurgii (nach. - prof. I.S. Kolesnikov)
Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.
(BURNS, therapy)
(CHLORAMPHENICOL, therapy)

SHELIAKHOVSKIY, M.V., kand.med.nauk (Leningrad, Lesnoy pr., d.4, kv.11)

Bronchoscopy in cancer of the lung. Vest.khir. 83 no.9:38-52 S '59.
(MIRA 13:2)

1. Iz gospital'noy khirurgicheskoy kliniki No.1 (nachal'nik - prof.
I.S. Kolesnikov) Voyenno-meditsinskoy ordema Lenina kakdemii im.
S.M. Kirova.

(LUNG, neoplasms)
(BRONCHOSCOPY)

SHELYAKHOVSKIY, M.V. (Leningrad, K-9, Lesnoy pr.4, kv.11)

Some problems in the pathological anatomy of pulmonary cancer.
Vop.onk. 7 no.11:3-11 '61. (MIRA 15:5)

1. Iz kafedry gospital'noy khirurgii No.1 (nach. kafedry - prof.
I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii
im. S.M. Kirova.
(LUNGS--CANCER)

SHELYAKHOVSKIY, M. V. (Leningrad, K-9, Lesnoy pr., d. 4, kv. 11)

Rare case of the prolonged presence of a foreign body in the
bronchus. Grud. khir. no. 2:83-85 '62. (MIRA 15:4)

1. Iz kafedry gospital'noy khirurgii No. 1 (nach. - prof. general-
mayor meditsinskoy sluzhby I. S. Kolesnikov) Voyenno-meditsinskoy
ordena Lenina akademii imeni S. M. Kirova.

(BRONCHI--FOREIGN BODIES)

SHELYAKHOVSKIY, M.V. (Leningrad K-9, Lesnoy pr., d.4, kv.11)

Differentail diagnosis of cancer and tuberculosis of the lungs.
Grud. khir. 5 no.2:66-72 Mr-Ap'63 (MIRA 17:2)

1. Iz kafedry gospital'noy khirurgii (nachal'nik - prof. I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

KOLESNIKOV, I.S.; ORDZHONIKIDZE, G.K.; SHELYAKHOVSKIY, M.V.; YERMOLAYEV, V.R.
YANOVSKIY, F.I.

Adenoma of the bronchi, their complications and operative
treatment. Grud. khir. 5 no.6:101-106 N-D'63 (MIRA 17:2)

1. Iz kliniki gospital'noy khirurgii (nachal'nik - prof. I.S.
Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii imeni
S.M.Kirova. Adres avtorov: Leningrad K-9, Botkinskaya ul., d.23.
Klinika gospital'noy khirurgii Voyenno-meditsinskoy ordena
Lenina akademii imeni S.M. Kirova.

KOLESNIKOV, I.S., prof.; SIBLYANOVSKIY, N.V., dotsent

Late results of surgical treatment of lung cancer. Khirurgiya 40 no.4:63-67 Ap '64 (NIR 18:1)

I. Kafedra gospital'noy khirurgii (nachal'nik - prof.
I.S. Kolesnikov) Voyenno-meditsinskoy ordena Lenina akademii
imeni S.M. Kirova, Leningrad.

SHELYAKHOVSKIY, M.V., dotsent (Novosibirsk 5, ul.Gogolya, d.65, kv.27);
TIKHMENEVA, T.P.

Immediate results of a resection of the pubic bone due to
chondroma. Ortop., travm. i protez. 2e no.12:61-63 D '65.
(MIRA 19:1)

1. Submitted April 16, 1965.

SHELYAKIN, Fedor Mitrofanovich; MATSUK, R.V., red.

[Production and marketing costs under socialism and how
to reduce them] Izderzhki proizvodstva i obrashchenia pri
sotsializme i puti ikh snizheniya. Moskva, Izd-vo VPSh i
AON pri TsK KPSS, 1963. 79 p. (MIRA 16:3)
(Costs, Industrial) (Marketing--Costs)

L 50992-65 EWT(1)/EPA(s)-2/EWT(m)/EWP(i)/EWT(d)/T/EWP(t)/EEC(b)-2/EWP(z)/EWP(b) 58
Pt-7/Pi-4 IJP(c) JD/GG 52
ACCESSION NR: AP5011447 UR/0048/65/029/004/0634/0638

AUTHOR: Spivak, G.V.; Shelyakin, L.B.; Nikitina, T.N.; Yurasova, V.Ye.; Filippova, T.F.;
Prokhorov, Yu.A.

TITLE: Magnetic properties of Permalloy films formed in ion bombardment /Report,
Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held in
Irkutsk 10-15 July 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 4, 1965, 634-638

TOPIC TAGS: ferromagnetic thin film, permalloy, magnetic property

ABSTRACT: The work was undertaken in view of the growing use of thin films in electronics and the consequent need for new and better film preparation techniques. Preparation of films by ion bombardment has a number of distinctive features and advantages (G.V.Spirak, V.E.Yurasova, O.A.Rozhkova, and T.N.Nikitina, Izv. AN SSSR, Ser. fiz., 28, 1411, 1964, and other papers by the Spirak group). Primary among these is good correspondence of the composition of the film with that of the initial, sputtered material. One of the objections to the ion bombardment technique is that inert gas atoms, present in the discharge chamber, become imbedded in

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ACCESSION NR: AP5011447

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the film and impair its properties. In the present experiments a series of films of different types of Permalloy were prepared in glow and arc discharges in an inert gas atmosphere. The orienting field was provided by a pair of Helmholtz coils. The substrates were glass, glass precoated with quartz, aluminum, aluminum cleansed by ionic etching, and rock salt. The substrates were washed before installation in the apparatus and then further cleansed by the discharge before deposition of the films. The films were investigated as regards some of their magnetic properties and subjected to chemical analyses for comparison with the analytic composition of the initial sputtered materials. Electron micrographs and electron diffraction patterns (one of each is reproduced) indicate that the Permalloy films were polycrystalline with a fine-crystal structure. The films on uncleansed Al were of poor quality, but those on cleansed Al were similar to films deposited on glass. Some magnetic data on the films, including curves of the inverse switching time versus switching field, are given in tables and figures. The results show that given proper control of the sputtering conditions and parameters it is feasible to prepare by this technique Permalloy films with characteristics similar to those of films prepared by thermal evaporation; the attainable reproducibility is satisfactory; for example, the scatter of coercive force values in a series of films was less than 10%. "In conclusion, we express

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ACCESSION NR: AP5011447

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our gratitude to R.V.Telesin, V.I.Kozlov, B.I.Sokolov, V.Yakovlev, and V.Kankova for consultations and assistance in the work." Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NM, EC

MR REF Sov: 004

OTHER: 004

sr
Card 3/3

USSR/Soil Science. Physical and Chemical Properties of Soils.

J-2

Abs Jour: Ref. Zhur-Biologiya, No 1, 1958, 1216

Author : O.A. Shelyakina

Inst :
Title : Some Characteristics of the Rotation of Sol [Ash] Substances
and Nitrogen in the Sierozem-Meadow Soils of the Kopet-Dagh
Submountainous Lowland.

Orig Pub: V sb: Takyry Zap. Turkmenii i Puti ikh s.-kh. osvoyeniya, Moscow,
Acad Sci USSR, 1956, 213-22..

Abstract: The processes of microbiological rotation of sol substances
and nitrogen between the soil and the plants of the large
"padding" scattered among the broad massifs of the "takyry"
of the central part of the Kyzyl-Arvat submountainous lowland
are examined. The vegetation of the "padding", with its under-
ground and above ground parts, extracts more than 1700 kg/H.

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USSR/Soil Science - Physical and Chemical Properties of Soil.

J.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15281

to 5.7 - 6.5% of the exchange capacity. The use of organic fertilizers has less effect: the exchange capacity grew in the corresponding variants by a total of 1.5-2 milliequivalents; the exchangeable sodium content dropped from 3.2 to 2.2 - 2.9 milliequivalents. In sands a reduction in the takyrs' exchange capacity was observed at 1.4-2.6 milliequivalents; the absolute Na content sunk from 3.2 to 1.7-2.4 milliequivalents; the relative one remained close to that of the control. By the second year of use somewhat of a reduction in soil exchange capacity was observed in all variants of the experiment, probably caused by the action of field water having an alkaline character. Less disruption in the colloidal absorption complex was observed in plots with deep tilling. The latter is recommended as the basic method of meliorating the takyrs.

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USSR/Soil Science - Physical and Chemical Properties of Soil.

J.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15281

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549020011-8

The action of the other methods on deeply plowed ground is considerably augmented.

Card 3/3

GUPTA, A. N., Shchelikhina, L., KLYUK, NOVA, I. A.

On the effect of suspended sediments in the
large rivers. Investigation No. 5 57-57 My 165.

(MIRA 1845)

Central geophysical AN Ukr. Pochvennyy Institut imeni
V. G. Kravtsova, Kiev, Ukraine.

PROKHOROVA, V.B.; SHELYAKINA, O.G.

Surgical treatment of uveal glaucoma. Sbor. nauch. trud. SOGMI
no.14:81-86 '63. (MIRA 18:9)

1. Glaznoye otdeleniye Rostovskoy oblastnoy bol'nitsy.

SHATALOV, P., bukhgalter; SHILYALINA, Ye.; BALABUSH, M.; TAHAN, G.;
KARNAUKHOV, V.; KAZAKIN, V. YA. KUV, N.

Wages based on finished production. Sots.trud no. 115-123 Ag '57.
(MIRA 10:9)

1. Rukovoditel' normativno-issledovatel'skoy gruppy "Urglavmyaso" pri Kiyevskom myasokombinate (for Shilyalina). 2. Starly inzhener normativno-issledovatel'skoy gruppy "Urglevmyaso" pri Kiyevskom myasokombinate (for Baratash). 3. Starshiy inzhener normativno-issledovatel'skoy gruppy "Urglevmyaso" pri Kiyevskom myasokombinatse (for Taran). 4. Nachal'nik ot dela truda i zarabotnye platy Ural-Kaspiskogo ryboprotivshchennogo tresta, g. Gur'yev Krasninskoy SSR (for Karaukov). 5. Nachal'nik ot dela truda i zarabotnye platy Glavmetsstruya (for Kazakin). 6. Inzhener ot dela truda i zarabotnye platy Glavmosstruya (for Yaltsev).
(Piecework)

SHELYAKINA, Ye.; BARABASH, M.; TALAN, G.

Innovation in the wage system for workers in preliminary processing
departments. Mias, ind. SSSR 28 no.5:46-47 '57. (MIRA 11:1)

1. Kiyevskiy myasokombinat.
(Meat industry) (Wages)

SHELYAKOV ,V.

Mighty source of technical progress. Sov. profsoiuzy 3 no.6:
40-42 Je '55. (MIRA 8:8)

1. Predsedatel' Tomskogo oblastnogo soveta profsoyuzov.
(Tomsk Province--Trade unions)

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CIA-RDP86-00513R001549020011-8

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549020011-8"

BOSTON, MASS., APRIL 19, 1968
JULIAN F. COOPER, JR.

Technological, medical aspect, and treatment in existing
from toxic chemical agents and radioactive substances
Patuxent River Research Laboratory, Beltsville, Maryland.
Library, Washington, D.C. 20585. (301) 435-1600

DUNDUKOV, M.D., inzhener; SAMSONOV, V.N.; KARPENKO, F.A.; KRIGER, N.I.;
KUZ'MIN, P.G., kandidat tekhnicheskikh nauk; SHELYAPIN, R.S.,
kandidat tekhn. nauk; MAKSTINOV, O.N., inzhener; MALYSHEV, M.T.,
professor; RODSHTEYN, A.G., kandidat tekhn.nauk; GOL'DSHTEYN, M.N.
professor; ABELEV, Yu.M., professor.

Discussion of the problem of building on coarsely porous settling
soils. Stroi. prom. 33 no.5:40-45 My '55. (MLRA 8:6)
(Soil mechanics)

SHELYASTIN, V.N.

PART I. BOOK EXPLOITATION

SOV/1297

Vsesoyuznaya nauchno-tehnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniyu v narodnom khozyaistve 1 naуке. Moscow, 1957

Polyeblenie izotopov. Nauchnyye gamma-usazanovki. Radiosetriya i dosimetry. Trudy konferentsii: Isotope Production. High-energy Gas-Radiation Facilities. Radiometry and Dosimetry. Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science. Moscow, Izd-vo Akademiya Nauk SSSR, 1958. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR; Glavnaya upravleniye po ispol'sovaniyu atomnoy energii SSSR.

Editorial Board: Prolov, Yu.S. (Resp. Ed.), Zavoronkov, N.M. (Deputy Resp. Ed.), Aalinov, K.K., Aksayev, B.A., Bochkarev, V.V., Lezhinitsky, M.I., Melikov, T.P., Smirnov, V.I., and Popov, G.L. (Secretary); Tech. Ed.: I. Novitskov, N.D.

PURPOSE: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive isotopes and radiation.

COVERAGE: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes and radiation; 2) high-energy gamma-radiation facilities; and 3) radiometry and dosimetry.

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PART I. PRODUCTION OF ISOTOPES

Prolov, Yu.S., V.V. Bochkarev, and Ye.Ye. Kulish. Development of Isotope Production in the Soviet Union. This report is a general survey on production methods, apparatus, raw materials, applications, investigations and future prospects for radio isotopes in the Soviet Union. Card 2/12

Aleksandrov, N.Ye.; A.V. Dubrovin, G.I. Kosorukov, O.R. Prokof'yev, S.I. Paliashov, V.I. Chavkin, V.N. Shelepin (deceased), and T.K. Shuvailova. Utilization of Mass Spectrometers with a Nonhomogeneous Field for Analyzing Isotopes of Light Elements. 73

Orloshenkov, K.G. and O.M. Zubarev. Relative Propagation Ability of Palladium and Germanium Isotopes. 78

Rosen, A.M. Some Problems on the Theory of Isotope Separation. 86

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Sergikh, O.P. and R.Ye. Kocherov. A Diffusion Column for Separating Isotopes. 122

Card 5/12

✓ H.S.
RAMM, S. N.; SHELYAPINA, A. S.

A study of the heat resistance of insole leather. Leg.prom. 15
no. 6:36-41 Je '55. (MIRA 8:8)
(Leather)

... , L.L.

YUDOVIT, I.S.: "Methods of teaching analytic reading in German in the
seventh class of secondary school". Moscow, 1955. Academy of Pedagogical
Science (SFSR), Inst of Teaching Methods. (Dissertations for the Degree of
Candidate of Pedagogical Sciences).

1 : Knizhnaya literatura, No. 12, 2 October 1955. Moscow.

Alfonsine
SHELYAPINA, T.S.

[Dwarf tapeworm] Karlikovyi tsopen. Moskva, Medgiz, 1953. 8 p.
(TAPEWORMS) (MLRA 8:11)

SHELYAPINA, T.S.; ROMODANOVSKAYA, O.V., zaveduyushchiya stantsiyey.

Method of preserving eggs of dwarf tapeworms. Med.paraz.i paraz.bol. no.3:
278 My-Je '53. (MLR 6:8)

1. Moskovskaya gorodskaya protivomalyariynaya stantsiya. (Tapeworms)

SHELYAPINA, T.S.

Treatment of diphyllobothriasis. Sov.med. 20 no.8:75-77 Ag '56.
(MLRA 9:10)

1. Iz Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii
(glavnnyy vrach M.S.Sokolovskiy)
(TAPWORM INFECTION, ther.
diphyllobothriasis)

SHELYAPINA, T.S.

First Moscow municipal conference on theoretical and practical
problems in parasitology. Med.paraz. i paraz.bol. 26 no.2:250-252
Mr-mp '57. (MIRA 10:7)
(MOSCOW--PARASITOLOGY)

SHELYAPINA, T.S.; TROFIMOVА, A.I.; MUROCHKINA, Z.V.

First interprovince conference on scientific and practical work
in the control of diphyllobothriasis. Med.paraz.i paraz.bol. 26
no.6:752-754 N-D '59. (MIRA 13:4)
(WORMS, INTESTINAL AND PARASITIC)

28(1), 5(1)

SCOV/64-59-1-17/24

AUTHORS:

Rashkovan, L. V., Payn, G. Z., Raysfel'd, A. A.
Shelyastin, M. V.

TITLE:

Experimental Automation of the Production of Weak Nitric Acid
(Opytnaya avtomatizatsiya proizvodstva slaboy azotnoy kisloty)

PERIODICAL:

Khimicheskaya promyshlennost', 1970, Nr 1, pp 73-79 (USSR)

ABSTRACT:

The Opytno-konstruktorskiy byuro avtomatiki (Experimental Design Office for Automation) in cooperation with the Gosudarstvennyy institut azotnoy promyshlennosti (State Institute of Nitrogen Industry) developed a scheme for the automation of the production of weak nitric acid under atmospheric pressure for the operation of the Dneprodzerzhinskiy azotnotukoviy zavod (Dneprodzerzhinsk Nitrogenous Manure Plant). To control this scheme the individual sections of the automation of the whole plant were examined separately. At first the experimental automation of the plant section for the conversion of ammonia (Fig 1) is described. The description of the automatic regulation shows that a pneumatic transmitter of the DPPM-270A type together with a secondary device of the 2RL-24V type, as well as connection blocks of the PSO-15 type and a regulator block of the 5RB-9A type, a remote ref-

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SOV/64-59-1-17/24

Experimental Automation of the Production of Weak Nitric Acid

erence input element of the BD-18 type, and gate valve V3 as well as relays RP-17A are used. To regulate the ammonia - air ratio an electromagnetic valve of the KE-2 type is used among other things, and to regulate the water level a pneumatic transmitter (datchik) DPP-280A, a pneumatic regulating system AUS and two signaling blocks 1RB-13 are used. To control the temperature of the nitrous gases a slightly modified electronic potentiometer EPP-09 is used. For protection from a possible explosion in the ammonia conversion a provisional arrangement with a potentiometer EPD-12 was used instead of a gas analyzer for infrared absorption GIP-5 from the OKBA production. A schematic representation of the partially automated beginning of operation (electric wiring) (Fig 2), as well as of the kinematic scheme of the regulation valves (Fig 3) with detailed explanations are indicated. The experimental automation of a number of columns of the department for acid absorption is described by a schematic representation (Fig 4). Except for a pressure gage of the EMID-4 type, an electronic device VEP-4 and a gas analyzer AFK-3, the above-mentioned devices are listed and their application is described.

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Experimental Automation of the Production of Weak Nitric Acid
SOV/64-59-1-17/24

Diagrams of an arrangement for the overflow between the acid columns (Fig 5), as well as of an additional cubic content to the pneumatic blocks AUS. (Fig 6) are also given. After the introduction of the described automation in ammonia conversion and of a number of acid-absorption columns a great simplification in the operation of plants could be noted.
There are 6 figures.

Card 3/3

SHELYASTIN, N.

Important sources for labor economy in light industry. Sots.trud
no.1:76-78 Ja '56. (MLRA 9:7)
(Industrial organization)

SHELYASTIN, N.

Transfer to a shortened workday and a new wage schedule in the light
industry. Sots.trud § no.4:58-64 Ap '60. (MIRA 13:9)
(Hours of labor) (Wages)

SHELYASTIN, N.

Wages for workers in the "Svit" leather and shoe manufacturing enterprise of the Czechoslovak Socialist Republic. Sots. trud 7 no.5:147-150 My '62. (MIRA 15:5)

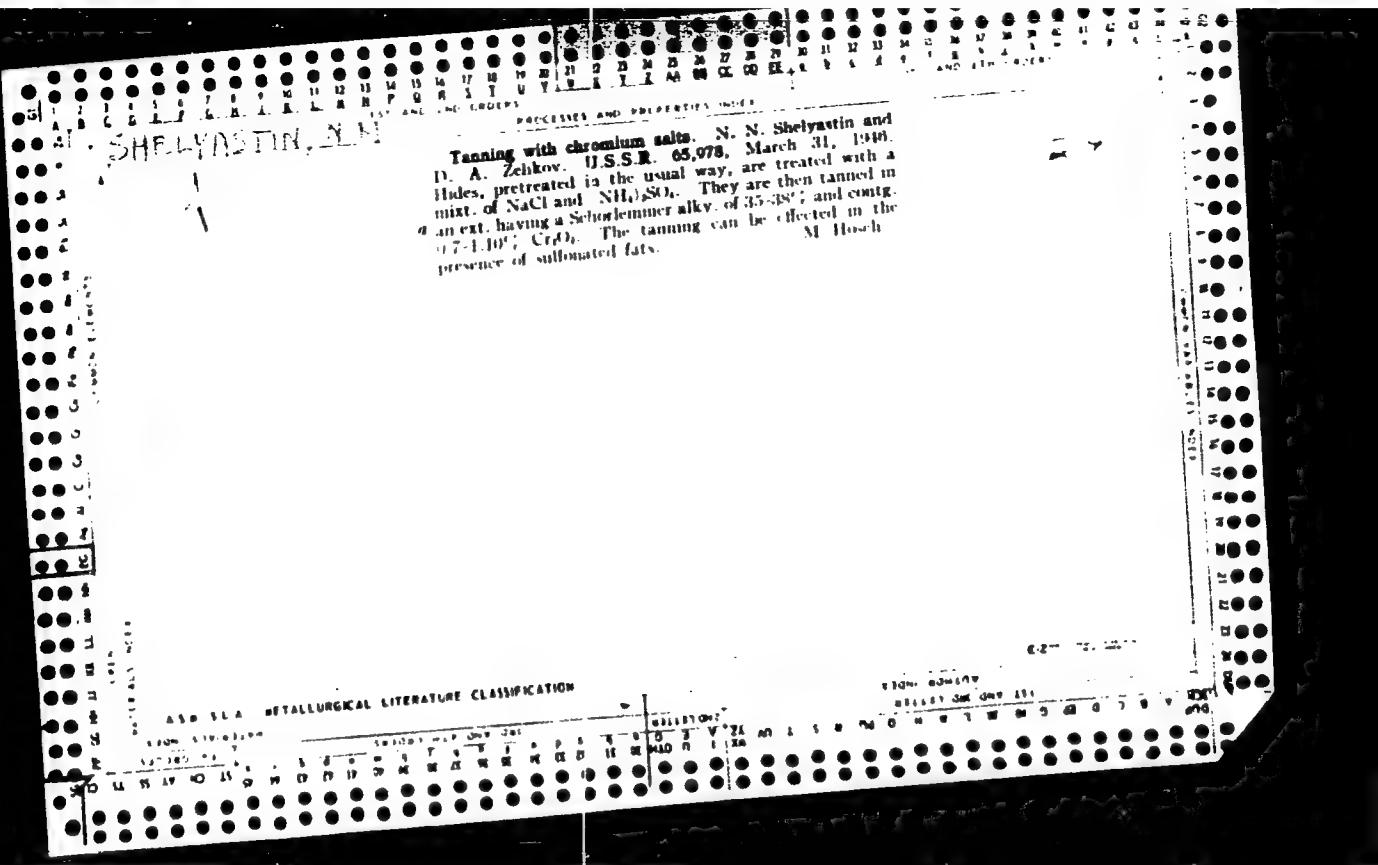
(Czechoslovakia--Wages--Leather industry)

(Czechoslovakia--Wages--Shoe industry)

SHELIASTIN, N.

Material stimulation of the manufacture of new articles. Sots.
trud 8 no.7:130-132 J1 '63. (MIRA 16:10)

1. Glavnyy inspektor po lekcy promyshlennosti Gosudarstvennogo
komiteta Soveta Ministrov SSSR po voprosam truda i zarabotnoy
platy.



KHOKHLOV, Isaak Ivanovich; KHOKHLOV, Yury Isaakovich; SHELYASTIN, N.N.,
nauchnyy red.; SHVETSOV, V.G., red.; TSIRYL'NITSKIY, N.P., tekhn.red.

[Manual on removing flaws from chrome tanned leather] Rukovodstvo
po ustraneniiu perekov khromovoi kozhi. Moskva, Vses.koop.izd-vo,
(MIRA 10:12)
1957. 167 p.

(Tanning)

SHELYASTIN, N.N.

Wage system for workers of the "Svit" leather and shoe enterprises.
Kozh.-obuv.prom. 5 no.2:36-40 F '63. (MIRA 16:5)
(Czechoslovakia--Wages--Leather workers)

SHELYASTIN, Vasiliy Nikolayevich, inzhener; BRISH, N.K., inzhener, redaktor;
BOBROVA, Ye.N., tekhnicheskiy redaktor

[Storing coal in uncovered piles] Opyt khraneniia uglia v shtabeliakh.
Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 50 p. (MIRA 10:9)
(Coal--Storage)

SHEVCHENKO, N.Y.

Standard norms for the number of employees and production in the enterprises of the primary processing of leather raw materials.
Kuch. - Sov. prom. 7 no.3:16-11. Nr 165.

(MIRA 16:10)

SHELYANOVA, T.A., assistent

Surgical treatment of severe forms of ulcerative proctitis. Kaz.
med. zhur. no.6:61-62 N-D '61. (MI:A 15:2)

1. Kafedra obshchey khirurgii (zav. - prof. A.I.Kozhevnikov)
Gor'kovskogo meditsinskogo instituta.
(RECTUM--DISEASES)

SHELYGIN, L.A., laureat Stalinskij premii.

Experience of the Ivanovo peat machinery plant in modernizing
serial production machines. Izorf.prom. 31 no.5:14-16 '54.(MLRA 7:8)

1. Ivtorfmash.
(Peat machinery)

SHELYGIN, L.A., inzhener.

Further perfection of units for peat machinery. Torf.prom.33 no.4:
4-8 '56. (Peat machinery) (MIRA 9:9)

ROZENPLETER, Nikolay Fedorovich; SHELYGIN, Leonid Aleksandrovich;
KAPUSTIN, Aleksandr Sergeyevich; ZABRODINA, A. N., tekhn.red.;
SOBOLEVA, Ye.M., tekhn.red.

[Atlas of peat machinery; types for machine peat] Atlas
torfianykh mashin; mashiny ekskavatornogo sposoba dobychi torfa.
Pod red. N.F.Rozenplentera. Moskva, Gos.energ.izd-vo, 1958.
63 p.

(MIRA 12:3)

(Peat machinery--Design)

SHELYGIN, L.A., inzh.; ZAPOL'SKIY, M.V., inzh.

The UPF-3 experimental peat-harvesting machine. Torf. prom. no.1:
23-26 '58. (MIRA 12:12)

1.Zavod Ivtorfmash.
(Peat machinery)

15.
CHIKH, V. P., ZAHLAVOVICH, A. I., KETKHEVICH, V. A., ERGEEVA, V. M.,
SALYAN, I. A. and SENEVICH, A. I.

Electrical and Thermal Properties on In Te - Semiconductor with
Defect Structure.

report presented at the Intl. Conf. on Semiconductor Physics, Prague,
29 Aug - 2 Sep 1960

Inst. of Semiconductors, Acad. Sci. USSR Leningrad

24,7600
24,7700

81780

S/181/60/002/02/25/033
B006/B067

AUTHORS: Averkin, A. A., Sergeyeva, V. M., Shelykh, A. I.

TITLE: Influence of Uniform Pressure ^N on the Electrical Conductivity
and Thermoelectromotive Force ^N of In₂Te₃ ^N

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 2, pp. 347-349

TEXT: Among the sphalerite-like crystallizing semiconducting compounds there are some of the composition A₂^{III}B₃^{VI} which have defects at the sites of the metal atoms. In₂Te₃, which has been investigated by the authors, also belongs to them. The investigations of the authors yielded the surprising result that in the isoelectronic series of semiconductors which crystallize sphalerite-like and have almost equal lattice parameters, the properties of In₂Te₃ deviate essentially from those of the right and left neighbors, and that they are governed by completely different rules. Hence, e.g., the carrier mobility in In₂Te₃ is anomalously small

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UX

81780

Influence of Uniform Pressure on the Electrical Conductivity and Thermoelectromotive Force of In_2Te_3 S/181/60/002/02/25/033
B006/B067

($10-45 \text{ cm}^2/\text{v.sec}$ for electrons) as well as the thermal conductivity of the lattice. According to Ye. D. Devyatkova and I. A. Smirnov, it amounts to $0.002 \text{ cal/cm.sec.deg}$ at 20°C . The authors investigated the influence exercised by the strong defectiveness of the lattice on the change of the electrical properties with uniform pressure (7000 kg/cm^2) in the temperature range $20-60^\circ\text{C}$. The In_2Te_3 samples had a size of $7 \cdot 3 \cdot 2 \text{ mm}^3$, the electric contacts were made of pure tin. The temperature in the pressure chamber was kept constant by means of an ultrathermostat (accuracy: 0.2°C). Paraffin was chosen as pressure transmitting medium. As may be seen from Fig. 1, the electrical conductivity of an intrinsic In_2Te_3 sample decreases with increasing pressure, passes through a minimum $P_{\sigma\min}$, and increases again with further increasing pressure. $P_{\sigma\min}$ somewhat differs in the various samples, and with increasing temperature it is shifted toward higher pressures. The $\sigma(P)$ curve shows a hysteresis which is particularly marked in samples with impurity conductivity

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UX

81780

Influence of Uniform Pressure on the Electrical Conductivity and Thermoelectromotive Force of In_2Te_3 S/181/60/002/02/25/033
B006/B067

(Fig. 2). A measurement of the coefficient of thermoelectromotive force α showed that in the pressure range $1 \div P_{\text{min}}$ the thermoelectromotive force is negative (n-type conductivity) and decreases with increasing P ; at P_{min} it is equal to zero, and with further increasing pressure it becomes positive (p-type conductivity). The p-type conductivity of samples with impurity conductivity is roughly trebled with increasing pressure in the range $1-7000 \text{ kg/cm}^2$, whereas the n-type conductivity hardly changes (Fig. 2). Emf measurements showed that in n-type and p-type samples $|\alpha|$ is independent of P within the limits of accuracy. In conclusion, the authors try to explain these experimental results theoretically. They thank V. P. Zhuze and A. R. Regel' for supervising the work. There are 2 figures and 2 non-Soviet references.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors of the AS USSR, Leningrad)

SUBMITTED: May 21, 1959

Card 3/3

UX

86439

24,7700 (1035,1043,1143)

S/181/60/002/011/026/042
B006/B056

AUTHORS: Zhuze, V. P., Sergeyeva, V. M., and Shelykh, A. I.

TITLE: Electrical Properties of the In_2Te_3 Defect-type Semiconductor

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 11, pp. 2858-2871

TEXT: The authors give a report on the results obtained by investigations of the electrical properties (conductivity, thermo-emf, Hall effect) of the In_2Te_3 semiconductor which has a high concentration of lattice vacancies ("intrinsic" defects - cationic vacancies) and cause a disturbance of the periodicity and a distortion of the potential field of the crystal. They greatly affect the motion and scattering of carriers and phonons. The authors chose In_2Te_3 because this defect-type semiconductor lies in the middle of the isoelectronic series AgI - CdTe - InSb - α -Sn, whose electrical and thermal properties are known, and also because the structure of this compound has already been investigated and some indications as to the arrangement of cationic vacancies are available; thirdly, data on electrical

✓

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86439

Electrical Properties of the In_2Te_3 Defect-type Semiconductor
S/181/60/002/011/026/042
B006/B056

and photoconductivity as well as optical absorption are available, while there are no data on galvanomagnetic, thermoelectrical and thermal properties. In_2Te_3 was synthesized from the elementary components in quartz ampoules by fusion at $700-750^\circ\text{C}$. As shown by A. I. Zaslavskiy and V. M. Sergeyeva, this compound exists in the α - and β -phases, the latter being stable above 550°C . Some properties of these two forms are given in Table 1. Fig. 1 shows the temperature dependence of the electrical conductivity of stoichiometric $\alpha\text{-In}_2\text{Te}_3$. In the range of $-70 - +400^\circ\text{C}$ there is intrinsic conductivity; the inclination of the straight line $\log \sigma = f(1/T)$ does not change up to melting temperature (667°C). Fig. 2 shows the irreversible change in electrical conductivity by heating up to more than $400-500^\circ\text{C}$ in air (1) or by continuous evacuation (2). Fig. 3 shows the change in electrical conductivity in the $\beta \rightarrow \alpha$ transition. The Hall effect was measured with direct current and in a constant magnetic field, using a compensation method. Fig. 4 shows the Hall coefficient R within the range of intrinsic conductivity as a function of temperature; the diagram also contains the mobility as a function of temperature. Fig. 5 shows analogous diagrams for other specimens with different degrees of orientation. Also Fig. 6

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Electrical Properties of the In_2Te_3 Defect-type Semiconductor S/181/60/002/011/026/042
B006/B056

shows σ and R as temperature functions of stoichiometric In_2Se_3 within the range of intrinsic conductivity, the degree of orientation rising in the sequence 3, 2, 1. Also the thermo-emf, $\alpha = f(1/T)$, is a straight line (Fig. 7). The numerical values obtained for the parameters of high-purity In_2Se_3 are given in Table 2. The forbidden band width at 0°K was determined to be 1.12 ± 0.05 ev. Further, the impurity conductivity was investigated. It could be shown that Bi impurities induce n-type, and iodine p-type, conductivity, whereas other atoms (Mg, Cd, Cu, Hg, Sb, Sn, Zn, Si, and Ge) in quantities of 1 at% cause no impurity conductivity. Fig. 8 shows $\log \sigma = f(1/T)$ for In_2Se_3 with 1 at% Sb, Cu, Hg, and Sn (parallel straight lines). Fig. 9 shows the temperature dependence of σ , R , and u_n on n-type In_2Se_3 , and Fig. 10 shows the same for p-type In_2Se_3 . Furthermore, details of chemical binding are discussed (Scheme, Fig. 11). The refractive index, n , (measured by M. I. Kornfel'd) was found to be 3.4 ± 0.3 for $\lambda = 2.2 \mu$, and the dielectric constant, ϵ , was equal to 16. The results of these investigations are discussed in detail, especially with respect to mobility. On account of the carrier scattering cationic vacancies, the mobility

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86439

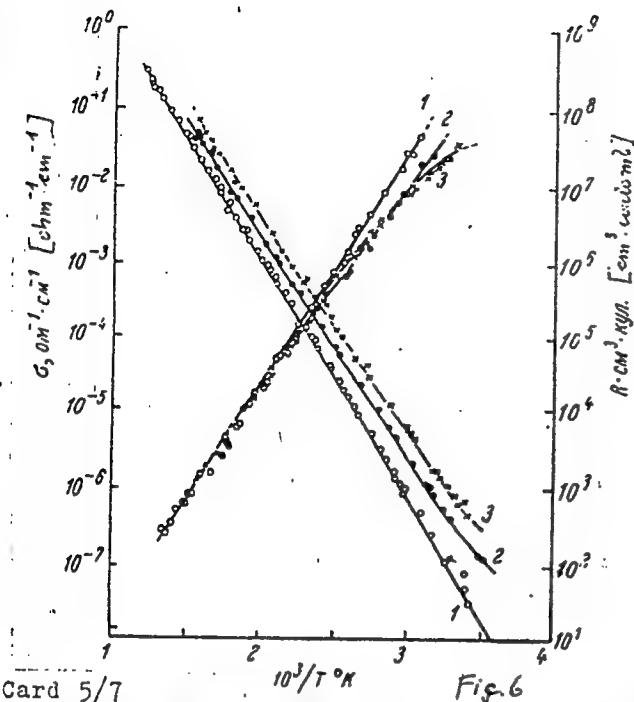
Electrical Properties of the In_2Te_3 Defect-type Semiconductor S'181/60/002/011/026/042
3006/3056

(like in other semiconductors of the group $\text{A}_2^{\text{III}}\text{B}_3^{\text{IV}}$; see table) is much smaller than in neighboring isoelectronic binary compounds of perfect structure. The carrier mobility is constant within a wide temperature range which is explained by the predominance of scattering by electrically neutral cationic vacancies. V. A. Petrushevich, I. Z. Fisher, V. N. Bogomolov, and A. F. Ioffe are mentioned. Ye. L. Shtrum' is thanked for chemical discussions, and N. F. Shvartsenau for help in measurements. There are 11 figures, 3 tables, and 27 references: 9 Soviet, 9 German, 4 US, 1 Dutch, and 3 Japanese.

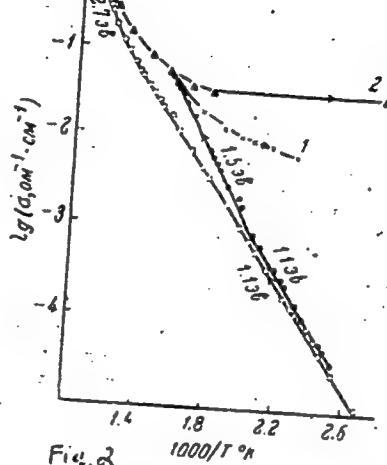
ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad
(Institute of Semiconductors of the AS USSR, Leningrad)

SUBMITTED: July 15, 1960

Card 4/7



S/181/60/002/011/026/042
5006/2056



86439

S/181/60/002/011/026/042
3006/3056

Таблица 3

	A ^I B ^{VII}	A ^{II} B ^{VI}	A ₂ ^{III} B ₃ ^{VI}	A ^{III} B ^V	A ^{IV} A ^{IV}
ΔE_0 , эв [e.v.]	CuBr	ZnSe	Ga ₂ Se ₃	GaAs	Ge
a , А	≈ 2.9	2.8	1.35 [²¹]	1.50	0.78
Ионность, %	5.68	5.65	5.42	5.63	5.65
n_s , см ² /в · сек.	—	18	16	7	0
$[cm^2/V \cdot sec]$		200	10	≈ 4000	3900
ΔE_0 , эв	CuJ	ZnTe	Ga ₂ Te ₃	GaSb	Ge + α -Sn
a , А	—	2.2	1.15 [²¹]	0.81	—
Ионность, %	6.05	6.08	5.87	6.09	—
n_s , см ² /в · сек.	—	13	11	5	—
		300	50	≈ 5000	—
ΔE_0 , эв	AgJ	CdTe	In ₂ Te ₃	InSb	α -Sn
a , А	≈ 2.8	1.80	1.12	0.23	0.08
Ионность, %	6.47	6.46	6.14	6.44	6.46
n_s , см ² /в · сек.	—	16	13	7	0
	50	600	15-70	50000	3600

Card 7/7

AVERKIN, A.A.; SERGEYEVA, V.M.; SHELYKH, A.I.

Effect of all-round pressure on the electric conductivity and
thermo-emf. of In_2Te_3 . Fiz. tver. tela 2 no.2:347-349 F '60.
(MIRA 14:8)

1. Institut poluprovodnikov AN SSSR, Leningrad.

(Crystals--Defects)

(Indium telluride--Electrical properties)

S/181/62/004/011/022/049
B104/B102

Determination of the sign...

For $j_y = 0$ (3') yields

$$E_y = \frac{HV_{0x}}{c} - A \frac{\mu H E_x}{c}. \quad (4)$$

This equation determines the field intensity E_y at the sides of a semi-conductor plate whose face coincides with the xy plane and which moves in the magnetic field H_z with the velocity V_{0x} . On the other two sides of the plate the field strength E_x is applied. (4) determines the Hall-emf or the induced emf in the case $V_{0x} = 0$ or $E_x = 0$. By changing V_{0x} or E_x the condition $E_y = 0$ may be realized from which one obtains $V_{0x} = A\mu E_x$ where μ is the carrier mobility and n the carrier density. Similar relations can be given for a p-type conductor. The final formulas obtained are $n = Aj_x/eV_{0x}$ and $\mu_n = A^{-1} V_{0x}/E_x$. The method described was checked in an experimental arrangement (Fig.), yielding satisfactory results. There is 1 figure.

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SHELYKH, A.I.; CHUKANOV, V.Z.

Equipment for the rapid determination of the temperature dependence of
the thermo-e.m.f. in semiconductors in a broad temperature range. Porosh.
met. 2 no.6:96-99 N-D '62. (MIRA 15:12)

1. Institut polyprovodnikov AN SSSR, Leningrad.
(Semiconductors) (Thermoelectricity)

SHELYKH, A.I.

Determining the sign, concentration, and mobility of
current carriers in semiconductors. Fiz. tver. tela
4 no.11:3208-3210 N '62. (MIRA 15:12)

1. Institut poluprovodnikov AN SSSR, Leningrad.
(Semiconductors—Electric properties)

5

Semiconducting properties of nicklous oxide. V. P. Zhuze, A. I. Shelykh.

Mobility of current carriers in ferro-and antiferro-magnetic material Ya. M. Ksendzov.

Electrical properties of chalcogenides of rare earth elements. A. V. Golubkov, Ye. V. Goncharova, V. P. Zhuze, V. M. Sergeyeva.

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

ZHIZE, V. P.; SHELYKH, A. I.

Hall effect in nickel oxide. Fiz. tver. tela 5 no.6:1756-
1759 Je '63. (MIRA 16:7)

I. Institut poluprovodnikov AN SSSR, Leningrad.

L 52607-65 EWT(1)/EWT(m)/EWG(m)/EWP(t)/EWP(b) IJP(e) RDW/JD
ACCESSION NR: AP5010730 UR/0181/65/007/004/1175/1182

AUTHOR: Zhuze, V. P.; Shelykh, A. I.

TITLE: Change in electric conductivity and thermoelectric power of In_2Te_3 and Ga_2Te_3 on melting

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1175-1182

TOPIC TAGS: group III element, group VI element, electric conductivity, thermo-electric power, semiconductor, activation energy, carrier density, carrier mobility

ABSTRACT: The purpose of the investigation was to clarify some doubtful aspects of the behavior of compounds with identical short-range order during the course of melting. The compounds investigated were of the $\text{A}_2^{\text{III}}\text{B}_3^{\text{VI}}$ type (In_2Te_3 and Ga_2Te_3) which were investigated by the authors in detail in the solid state (FTT v. 2, 2858, 1960). The samples were prepared by the same procedure as in the earlier work. Measurements were made of the temperature dependence of the electric conductivity and thermoelectric power of these substances in the solid and liquid

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ACCESSION NR: AP5010730

states. The electric conductivity was measured by the probe method using a specially designed ampoule. The differential thermoelectric power was measured by a null method, using the same ampoule, in which a temperature gradient (usually 20–25°C) was produced by an additional heater placed over its upper part. In addition, the integral thermoelectric power was measured by a method described by one of the authors earlier (Poroshkovaya metallurgiya no. 6, 96, 1962). The measurements show that the conductivity increases with increasing temperature, and experiences an abrupt rise in the rate of increase at the melting point. The activation energy of In_2Te_3 remains approximately the same in the solid and liquid states (approximately 1 eV), indicating that the substances retain their semiconductor properties in the liquid state. The activation energy of Ga_2Te_3 increased from 1.7 to 2.3 eV after melting. The thermoelectric power decreases rapidly with increasing temperature, reversing sign near the melting temperature, and assuming a nearly constant value in the molten state (20–40 $\mu V/deg$). The jumplike rise in electric conductivity upon melting is attributed essentially to the growth in carrier density, and the behavior of the thermoelectric power is related to the equalization of the electron and hole mobilities. Some differences between the behavior of compounds of the type $A^{III}B^V$, $A^{III}B^VI$, and $A^{III}B^{VI}$ are explained on the basis of differences in the filling of the volume of the crystal lattice, which in turn is deter-

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L 52007-65
ACCESSION NR: AP5010730

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mined by the degree of ionicity of the chemical bond. "We thank student Liu Wen-nai of IGU for participating in the measurements." Orig. art. has: 4 figures [02] and 2 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 13Nov64

ENCL: 00

SUB CODE: IC , EM

NO REF Sov: 011

OTHER: 017

ATD PRESS: 4008

OK
Card 3/3

L 58704-65 EWP(e)/EWT(m)/EWP(w)/EWA(g)/EPR/T/EWP(t)/EWP(y)/EWP(z)/EWP(b)
Pf-4/Ps-4 IJP(c) JD/JG

ACCESSION NR: AP5016589

UR/0363/65/001/005/0737/0742
546.655'824 + 546.655'763 + 546.

AUTHOR: Shvayko-Shvaykovskiy, V. Ye.; Leonov, A. I.; Shelykh, A. I. 655'623

TITLE: Electric and thermogravimetric studies of cerium titanate, chromite,
and aluminate having a perovskite structure 39

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 5, 1965,
737-742 37B

TOPIC TAGS: cerium titanate, cerium chromite, cerium aluminate, perovskite,
semiconductor, thermogravimetric analysis, electric conductivity

ABSTRACT: The compounds were prepared by heating pressed powder mixtures of cerium dioxide and the corresponding metal oxide at 1400C (cerium titanate), 1600C (cerium chromite), and 1700C (cerium aluminate) for 3 hr. Trivalent cerium (Ce_2O_3) reacting with the oxides of titanium, chromium, and aluminum forms the following compounds: $Ce_2O_3 \cdot TiO_1 \cdot 8$, $CeCrO_3$, and $CeAlO_3$. The oxidation of the three compounds on heating in air was followed thermogravimetrically, and the effect of heating on their electrical conductivity was investigated. Thermogravimetric and x-ray analyses showed that all three compounds decompose

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L 58704-65

ACCESSION NR: AP5016589

2

in air to form the free oxides (CeO_2 , TiO_2 , Cr_2O_3 , and Al_2O_3). Cerium titanate begins to oxidize at about 260°C, cerium chromite at about 600°C, and cerium aluminate at about 800°C. The oxidation of cerium compounds is associated with a marked change in electrical conductivity, which decreases in cerium titanate (n-type conduction) and increases in cerium chromite and aluminate (p-type conduction). Orig. art. has: 6 figures and 1 table.

ASSOCIATION: Institut khimii silikatov Akademii nauk SSSR (Institute of Silicate Chemistry, Academy of Sciences, SSSR); Institut poluprovodnikov Akademii nauk SSSR (Institute of Semiconductors, Academy of Sciences, SSSR)

SUBMITTED: 22Dec64

ENCL: 00

SUB CODE: IC, EM

NO REF SOV: 002

OTHER: 003

Card

2/2

L 22898-66 EWT(1)/EWT(m)/T/EWP(t) IJP(c) JD/HW
ACC NR: AP6006878 SOURCE CODE: UR/0181/66/008/002/0629/0631

AUTHOR: Zhuze, V. P.; Shelykh, A. I.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov
AN SSSR)

TITLE: Hall effect in single-crystal cobalt monoxide

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 629-631

TOPIC TAGS: cobalt compound, single crystal, Hall effect, semiconductor conductivity, Neel temperature, carrier density, crystal defect, hole mobility, ionic crystal, Hall mobility

ABSTRACT: To check on the mechanism of electric conductivity of CoO and other 3d-metals, whose conductivity is much lower than that expected on the basis of the Bloch-Wilson model, the authors measured the Hall effect in CoO single crystals grown at the Institute of Crystallography AN SSSR by the Verneuil method. The samples were in the form of plates measuring 6 x 4 x 0.2 mm. The electric conductivity and the Hall emf were measured by a dc null method in a magnetic field of 23,000 oe. The Hall effect could be measured in a wide temperature interval ($10^3/T = 1.2-3.2$) above the Neel point. The temperature dependence of the Hall

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